



# US Air Force Procurement Transformation and the Enterprise Architecture for Procurement

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# What is Procurement Transformation?

- **Alignment of Policies, Processes, People, and Technologies in support of an overall Procurement Vision**
  - Exploit industry best practices & technology to leverage AF spend
- **Strategic vs. Tactical Purchasing**
- **Training and People Development**
  - Geared towards e-enabled strategic procurement
- **Streamlined and Flexible Policy**
  - Must support AF transformation objectives & foster considered risk taking
- **Web-based Technology**

Procurement Transformation  
at the US Air Force



# Procurement Transformation

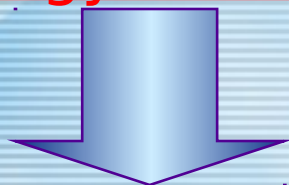
**Policy:** “why” Procurement does what they do

**Processes:** “what” they do, “how” they do it,

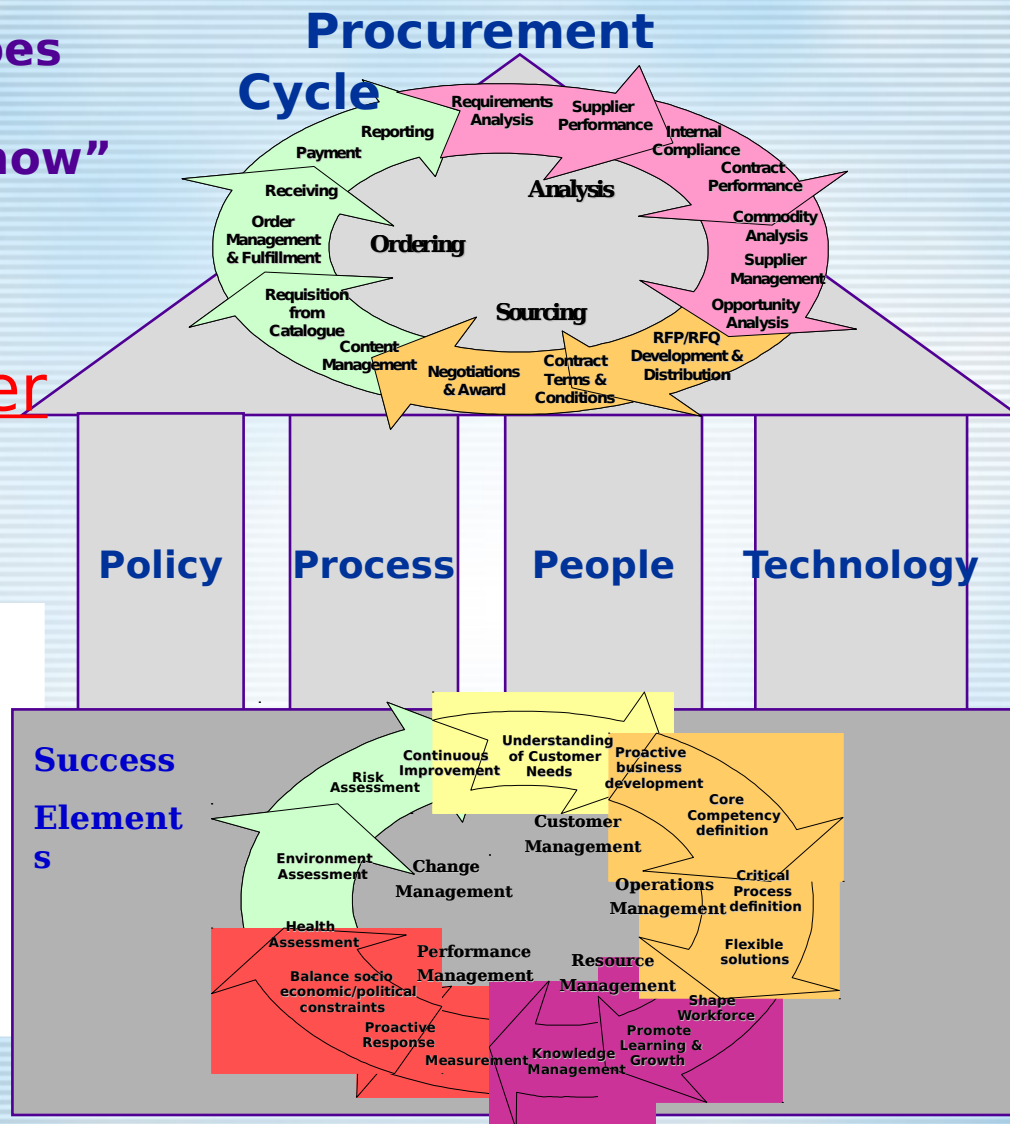
**“when” and “where”**

**People:** who does it

**Technology is the enabler**



Understand what they buy  
Leverage the AF Spends  
Improve supplier performance  
Reduce bottom-line cost  
Increase responsiveness  
Migration from tactical to strategic







The EAP project required effective sponsorship, broad participation and new tools and techniques.

- Jointly sponsored by SAF/AQC and AF CIO
  - Deputy Assistant Secretary (DAS) of the Air Force (Contracting)
  - Air Force Chief Information Officer
- Participation from major commands, SAF/AQ, CIO's office, the Standard Systems Group, Materiel Systems Group, procurement subject matter experts and IT specialists
- Employs facilitated modeling workshops
  - Sponsors, subject matter experts and specialists provide procurement expertise and decision-making
  - Outside consultants as facilitators and workshop analysts
  - Deliverables created and managed with Proforma's ProVision integrated modeling tools and repository
- Iterative modeling workshops
  - Operational Views
  - Systems Views (plus confirmation of Technical Views)



# Starting Point: Architectures

## Federal Enterprise Architecture (FEA)

OMB



Formerly Defense Information Infrastructure (DII)

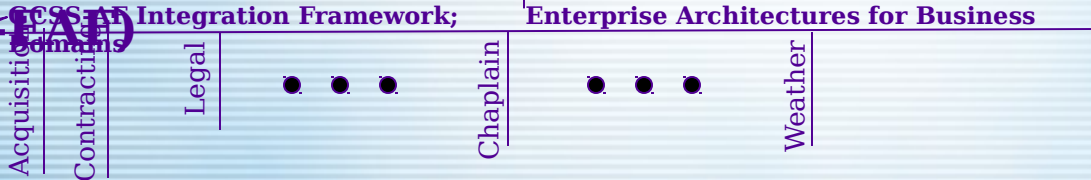
## DoD Architecture Framework (DoDAF)

Formerly C4ISR



## Air Force Enterprise Architecture Framework (AF-EA)

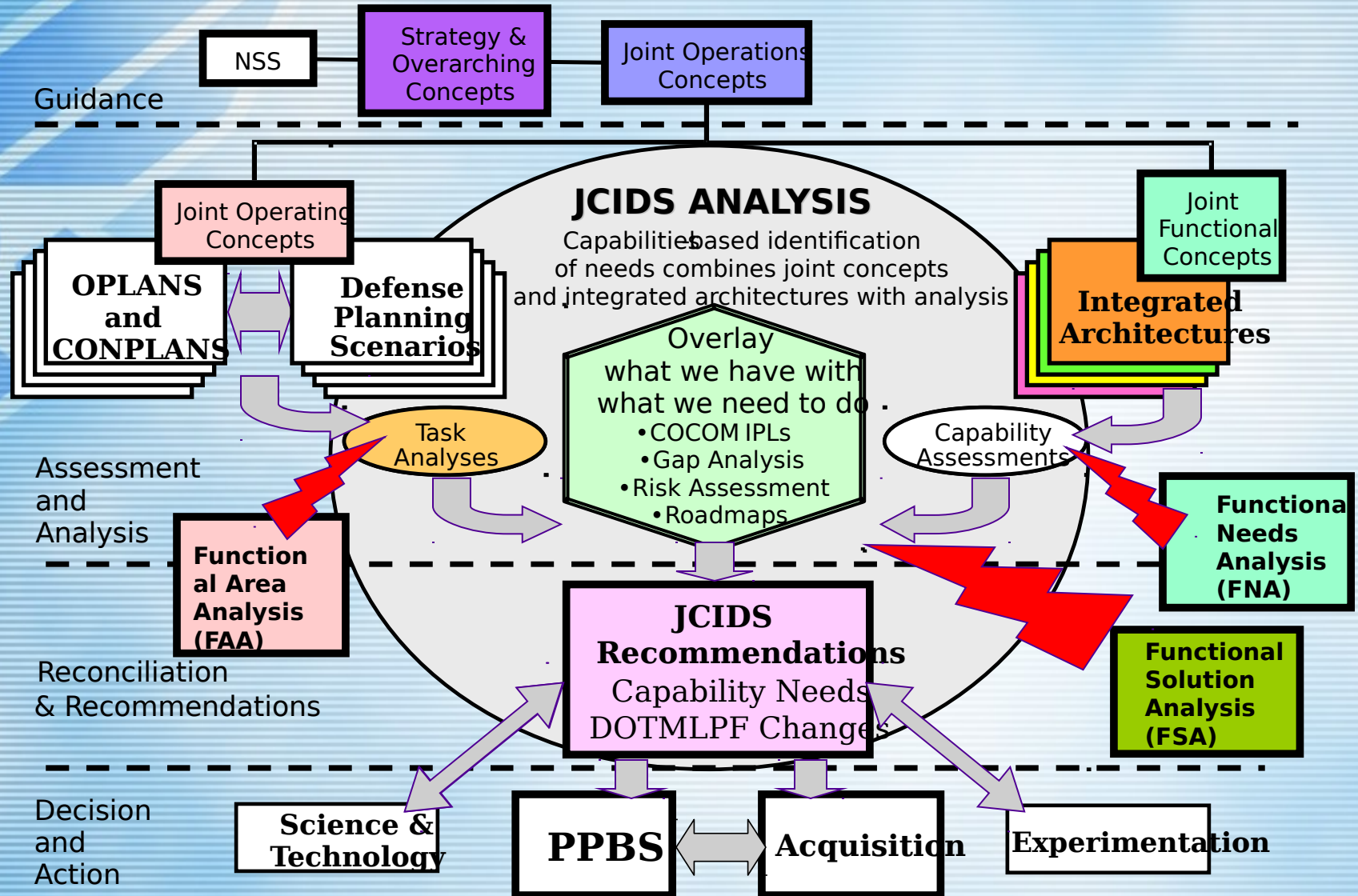
Common Operating Environment (COE)



23 Business Domains



# Architectures are key for Joint Capabilities Integration







# End State: Delivering Relevance

AF Domains  
Sharing Information is More Powerful Than Controlling It





# Procurement Transformation

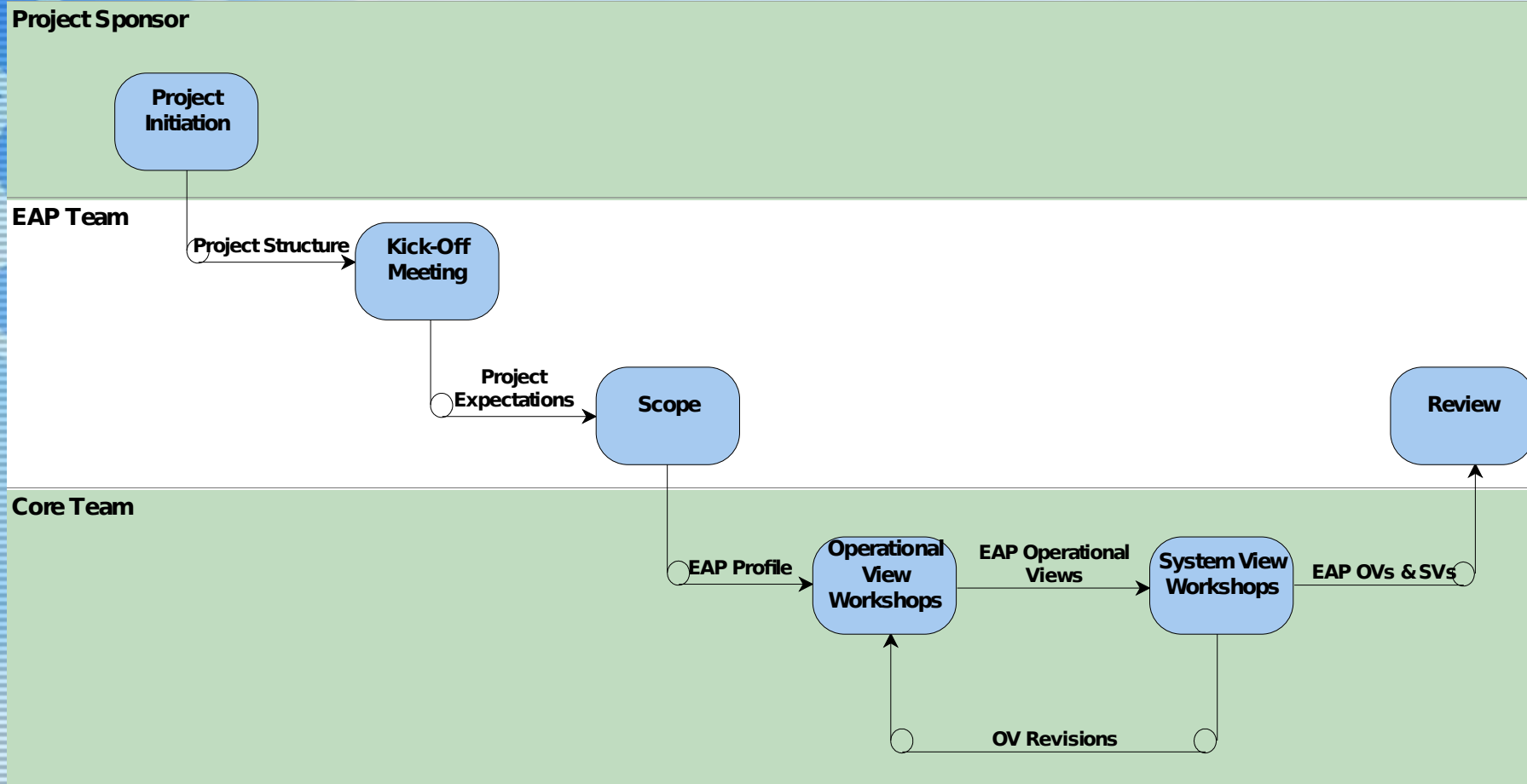
Enterprise Architecture for  
Procurement (EAP)

**Project Overview**





The EAP Project consists of a structured sequence of tasks focused on the deliverables from facilitated modeling workshops





# Overarching Architectural Relationships Governing & Integrating with EAP

## Overarching Domain Arch

- BMMP/OSMP
- EAIC
- Log EA
- e-Gov (FEA)

## Overarching Tech Arch

- C2ERA
- GCSS-AF
- GIG

## Legend

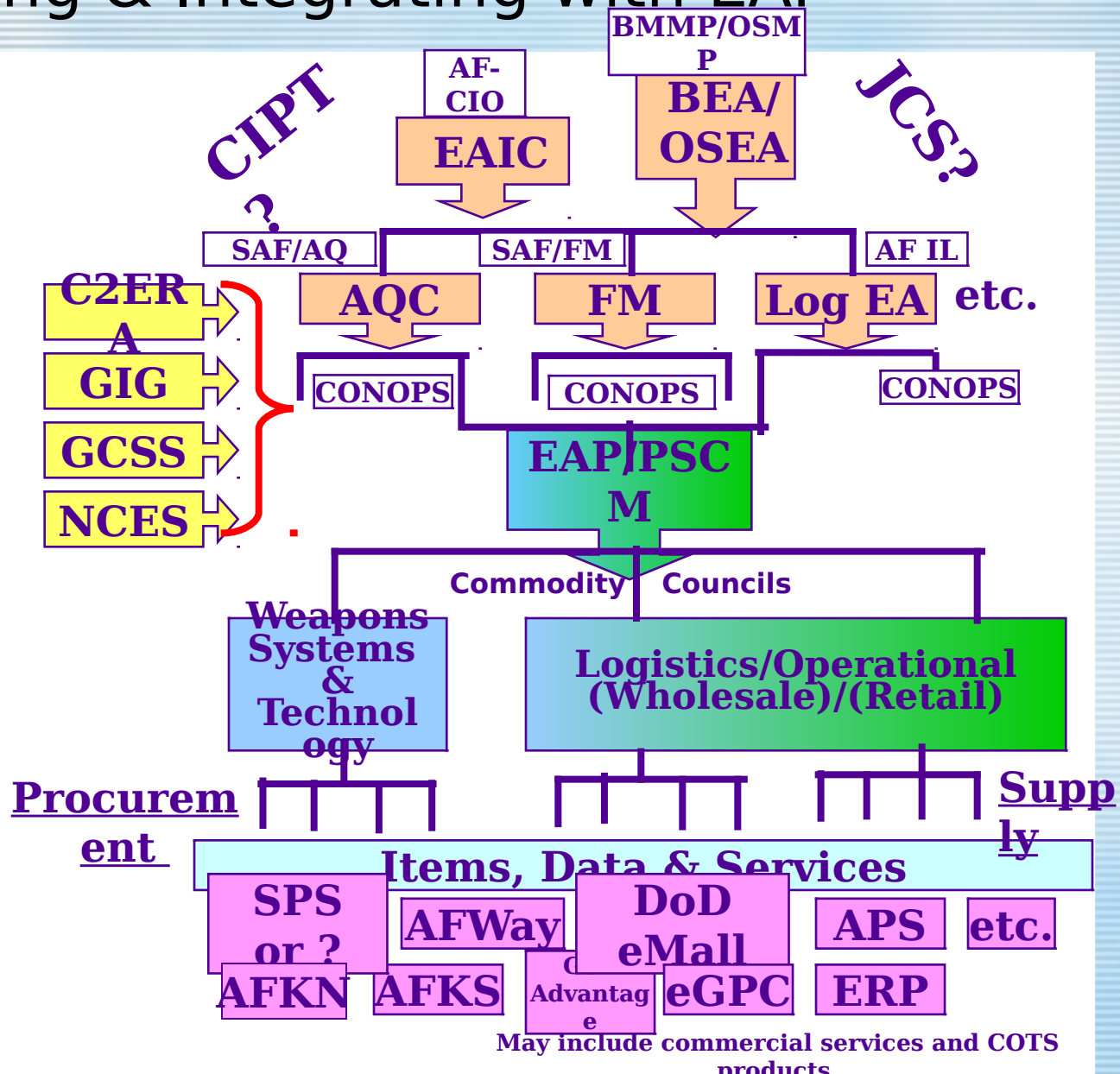
Domain Arch

Tech. Arch

PSCM Arch

EAP Arch

Potential Tools





# Commodity Council Overview

**'Commodity' = segmentable category of goods or services**

- Does not imply an expendable or non-complex item

**'Commodity Council' = cross-functional sourcing team**

- Develop enterprise-wide procurement strategies
- Integrate customers and suppliers
- Drive commonality and standardization
- Leverage purchasing volume

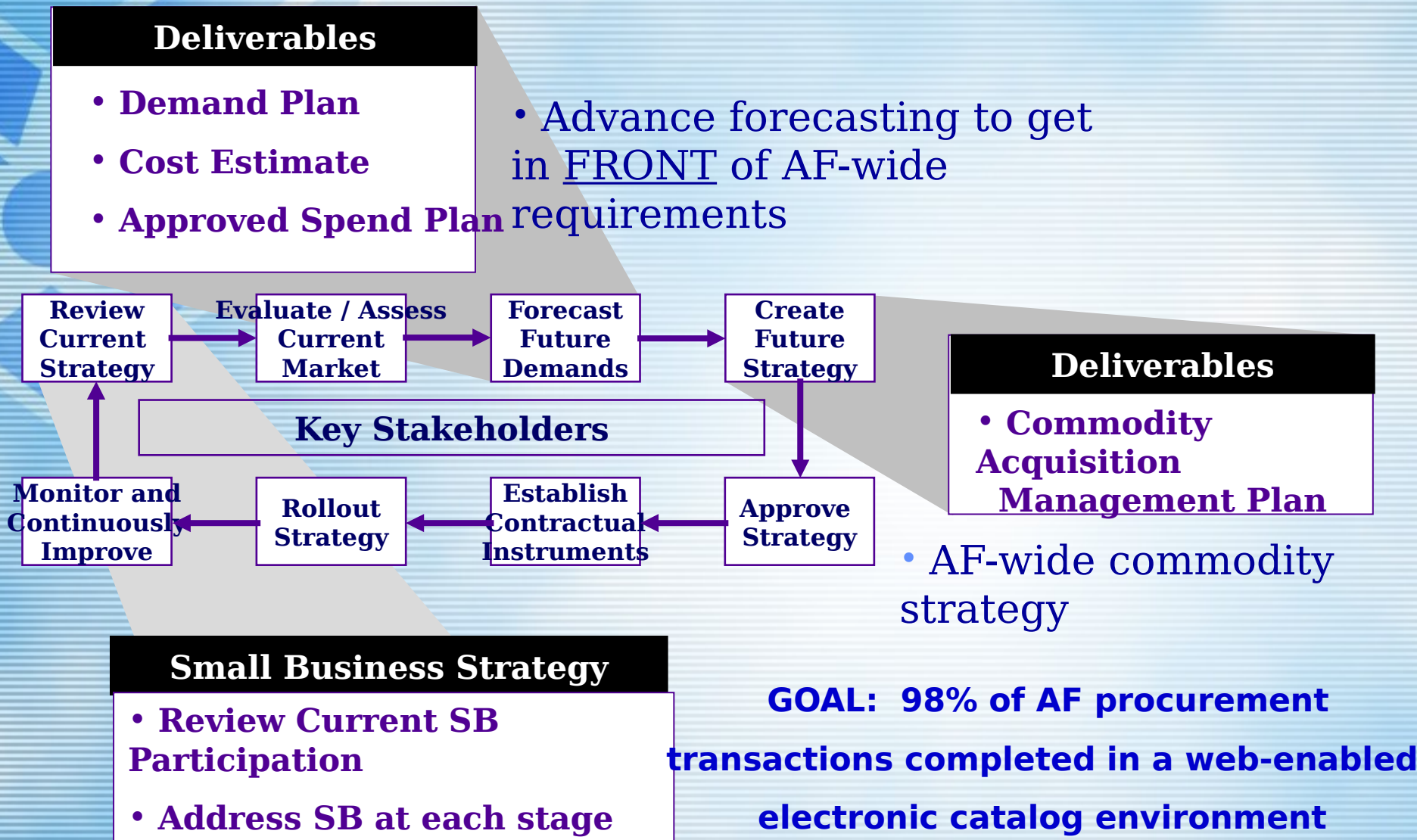
**Characteristics of a Commodity Council:**

- Executive-level endorsement
- Well-informed and market savvy commodity experts
- Centralized strategy . . . decentralized execution





# What's Different?: The Commodity Council Process





The vision of procurement transformation is to implement the “best practice” of Commodity Councils.

### **Implement the 'Commodity Council' concept within the AF**

- **Eliminate duplication of effort**
- **Minimize supply chain costs through integration / collaboration**
- **Demonstrate the power of leveraged purchasing**
- **Meet small business obligations, and seize small business opportunities**

### **Achieve cost savings and performance improvements by leveraging commodity volumes across the Air Force**

- **Improve customer support**
- **Reduce purchase cost of items**
- **Increase quality of goods and services**
- **Accelerate delivery responsiveness**



# Expected Impact

**AF's sustainment / operational spend = \$35B annually**

- **If we meet industry's 12% avg. goal, we can save \$4.2B**
  - **\$4.2B ~ 40 F-22 Raptors**
    - ~ 105 Joint Strike Fighters
    - ~ 21 C-17 Globemaster IIIs
    - ~ the AF's 'Spares' budget
    - > the GDPs of 68 nations

**When does it become meaningful?**

- **12% savings in Office Furniture = \$9.12M**
- **12% savings in ADP Equipment = \$108.5M**
- **12% savings in Engine Components = \$215M**





# Commodity Council Pilot IT Commodity Council Update

IT CC quick win – EOY Buy

- Image Consolidation
- Configuration simplification
- 12,500 computers instead of 10,000 for the same dollars spent
- New leveraged buy price = **\$648.00**

***“the Air Force bought computers at a 30 percent discount by buying in bulk . . . And it’s a strategy that we plan to use***

***more” John Gilligan AF CIO***



***“Give me a lever  
long  
enough and I can  
move the world”***

***- Archimedes***



# Implementing Commodity Councils will cause several “People” Differences.

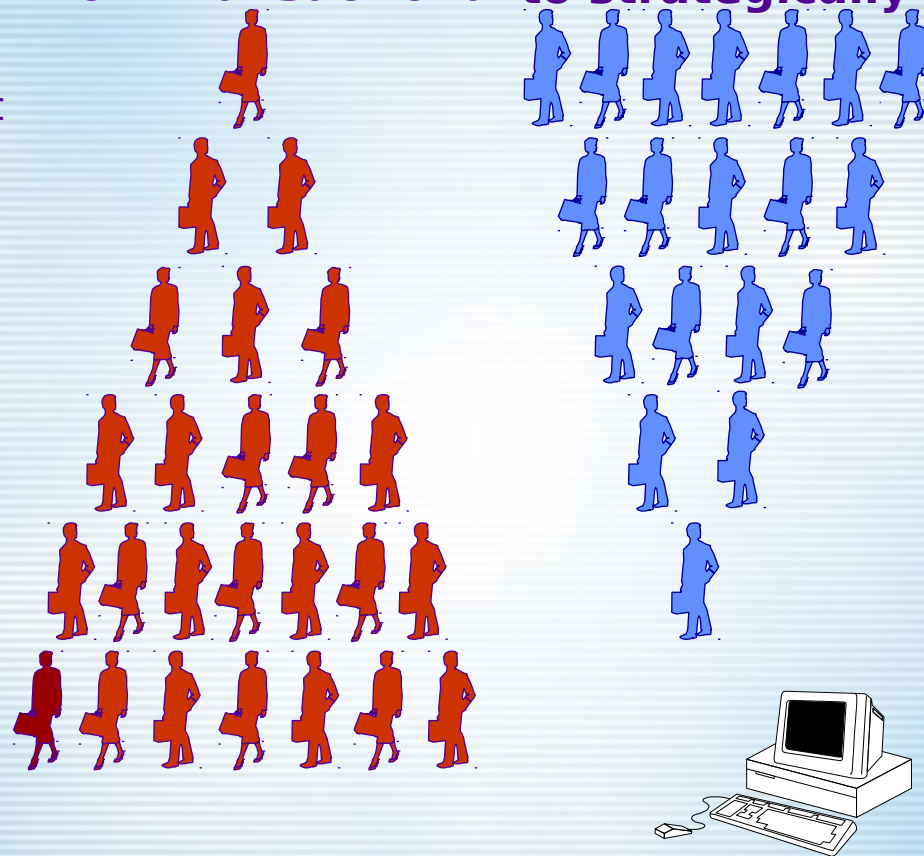
**Strategic**

**Activities**

Market knowledge  
Supply base management  
Commodity strategy  
Risk management  
Sourcing strategy  
Supplier capability assessment  
Strategic negotiation  
Supplier selection  
Supplier development  
Establish performance metrics  
Supplier performance evaluation/reporting  
Commercial (tactical) negotiation  
Order processing

**Tactical**

**From transactional to strategically focused**





# Procurement Transformation

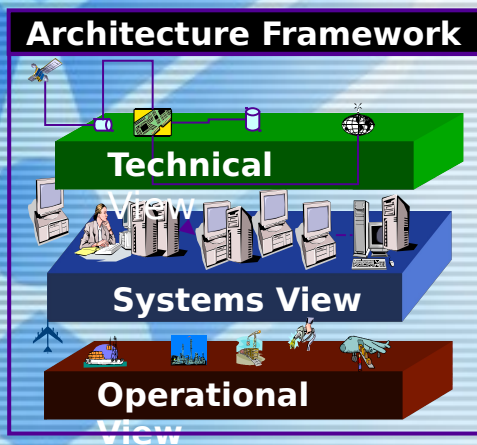
## Enterprise Architecture for Procurement

### **Operational Views**



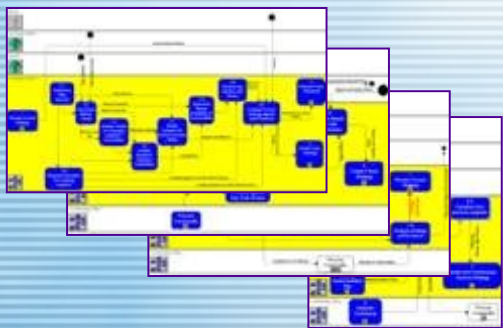
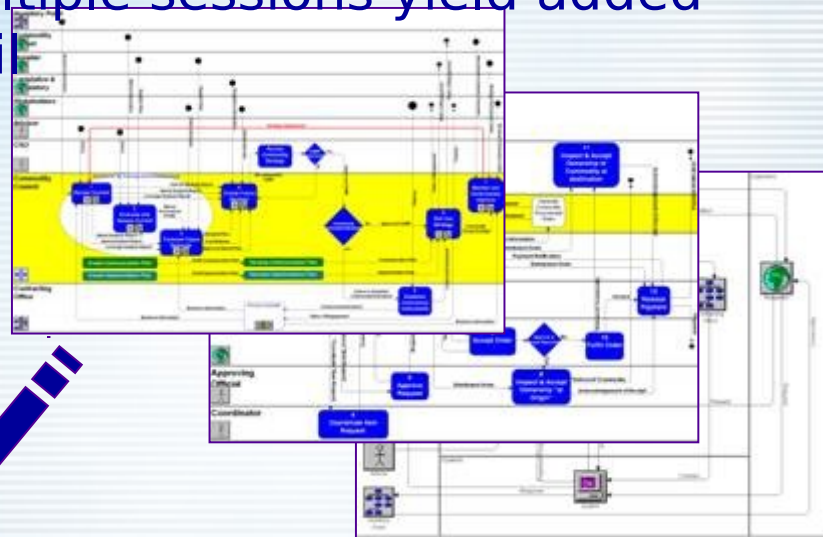


# DoDAF Operational Views are captured primarily as multi-level workflow models and their interpretations



- Teams are developing "Systems Views" & "Technical Views" to support "Operational View"

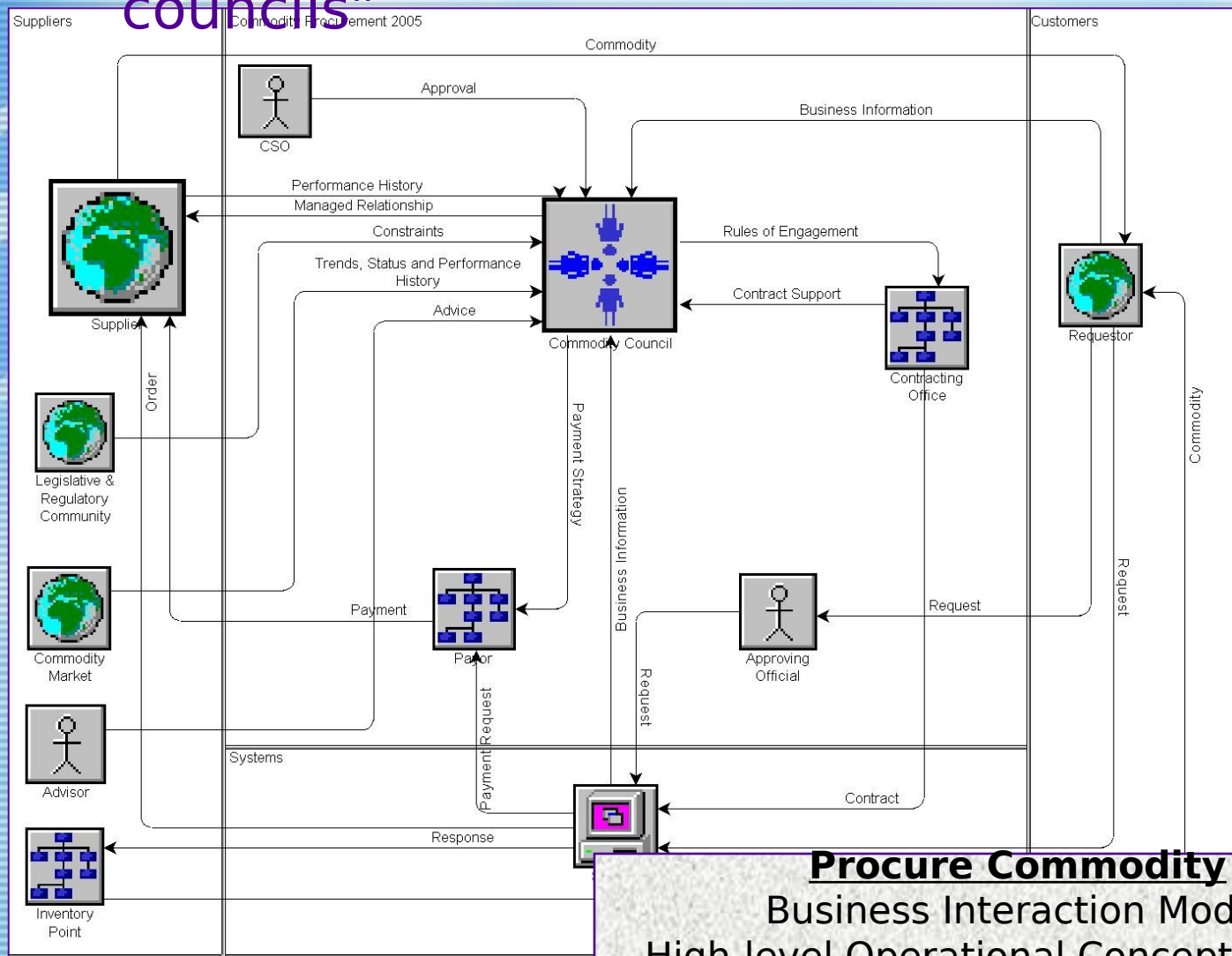
- Project team has developed major "Operational View" process workflows
- Multiple sessions yield added detail



- Project team adding add'l sub-process details based on System View work



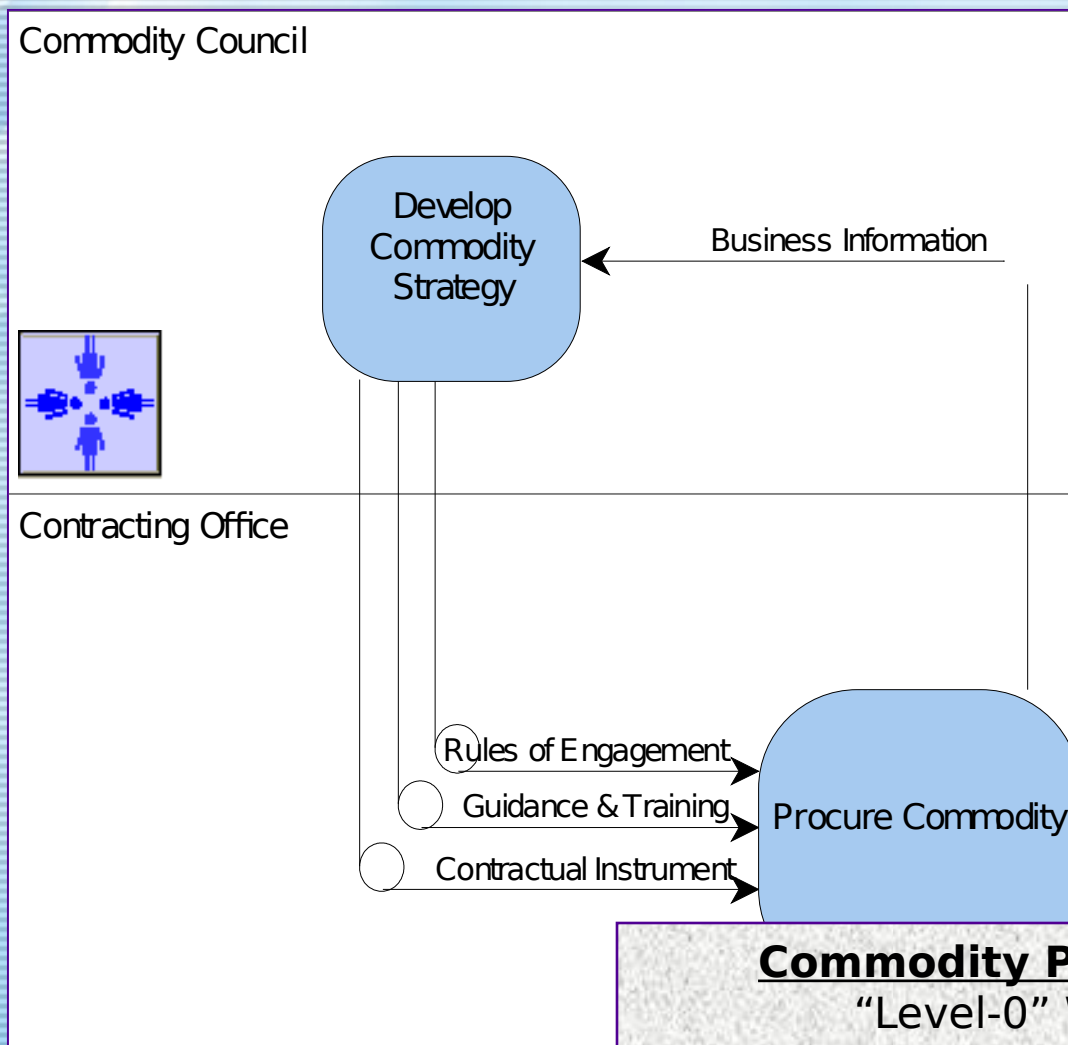
# The Business Interaction Model describe the high-level operational concept of “commodity councils”



**Procure Commodity**  
Business Interaction Model  
High-level Operational Concept Graphic  
(OV-1)



# At the highest level, procurement is partitioned into “Strategy” and “Procurement” processes

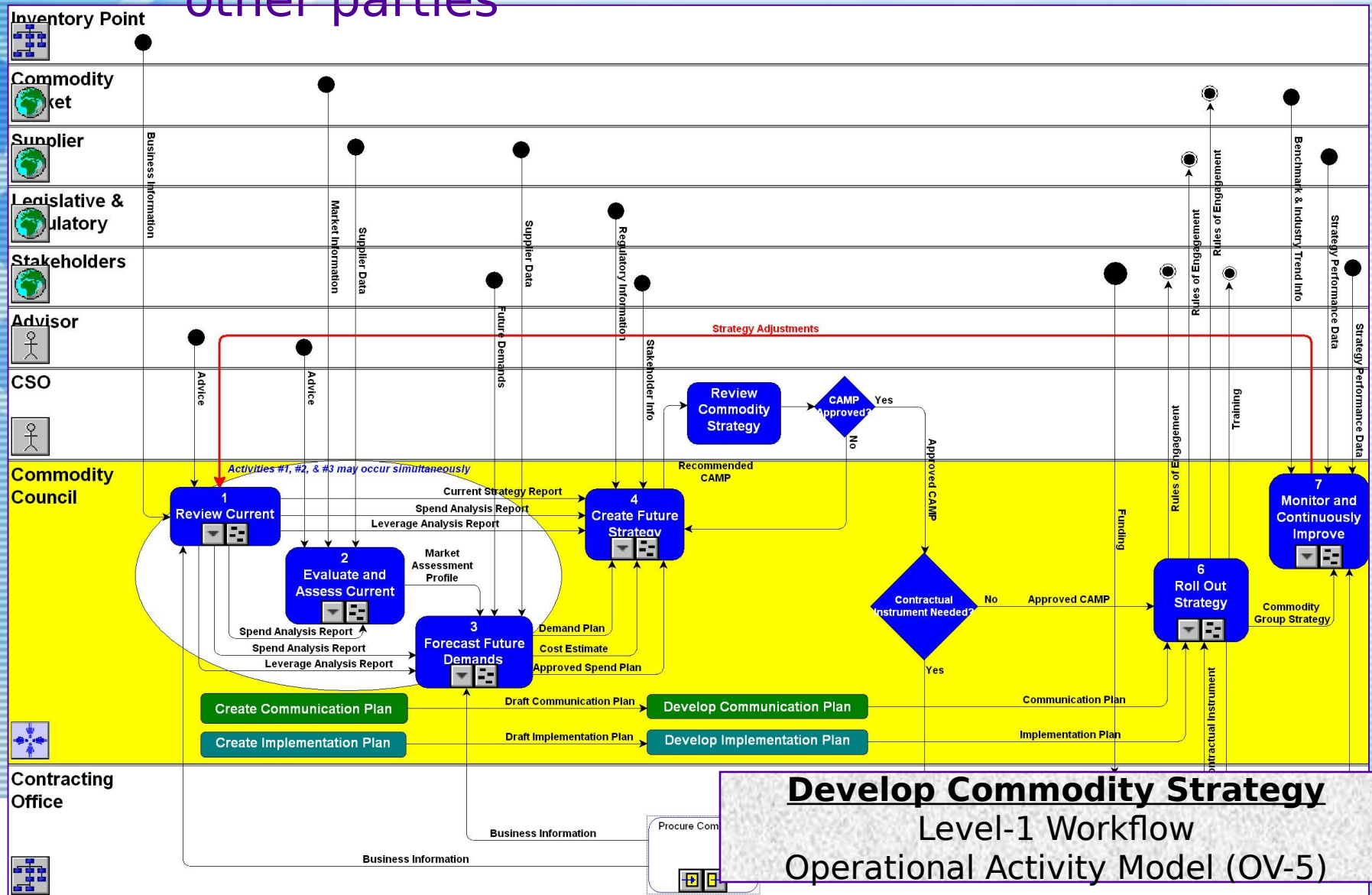


**Commodity Procurement**  
“Level-0” Workflow  
Operational Activity Model (OV-5)



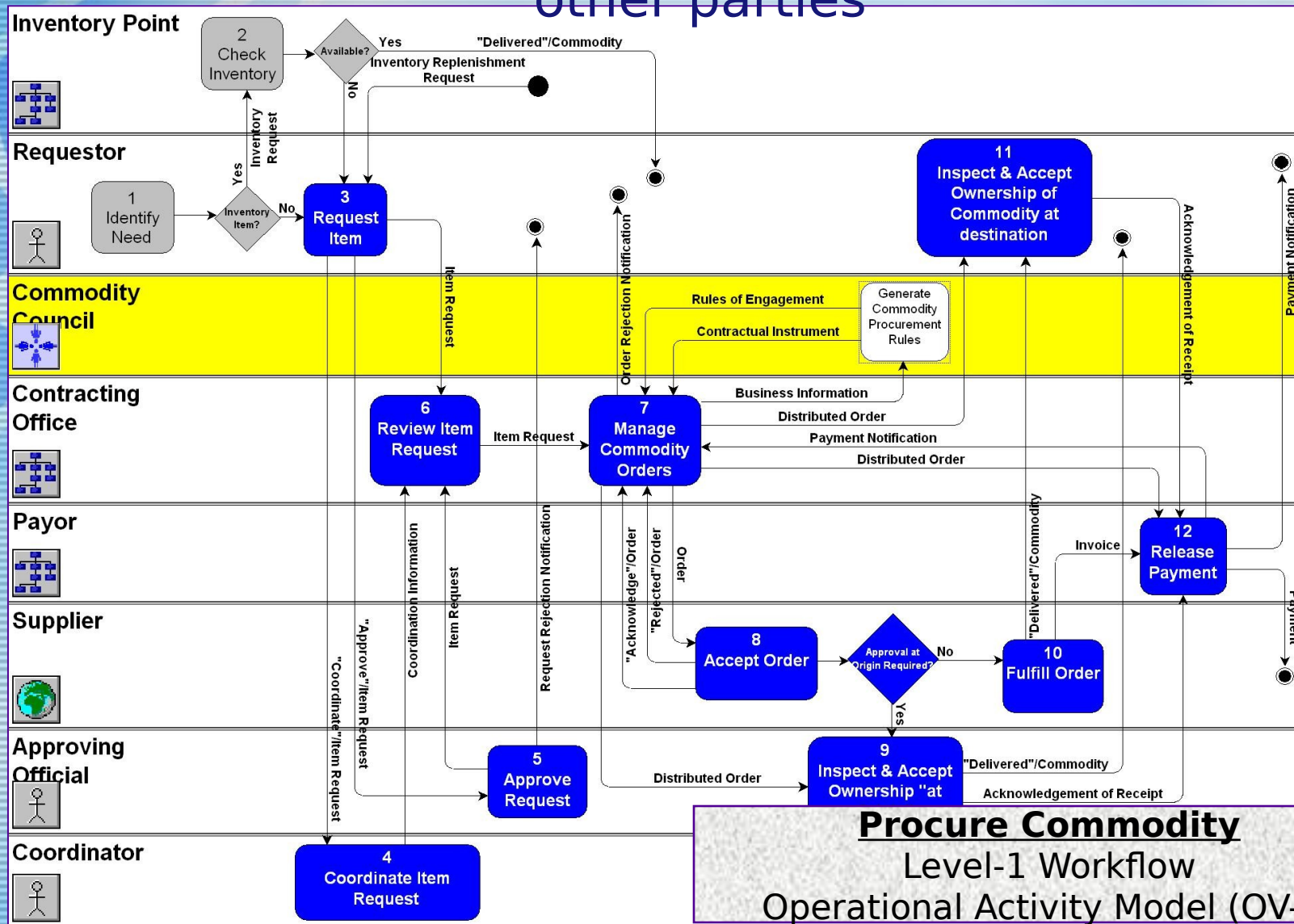


# “Strategy” Workflow describing the Commodity Council and its interactions with other parties



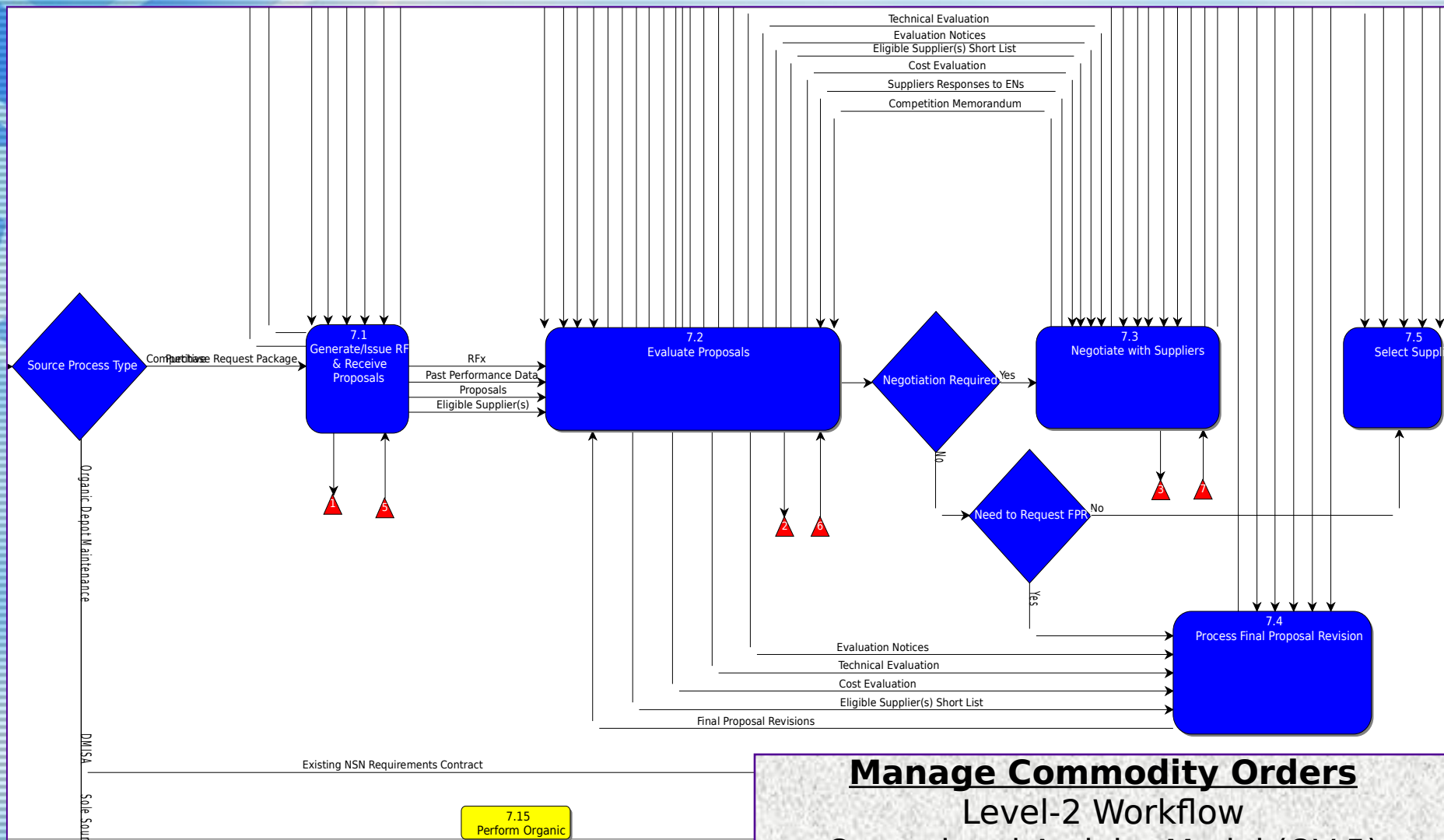


# "Procurement" Workflow describing the Contracting Offices and their interactions with other parties





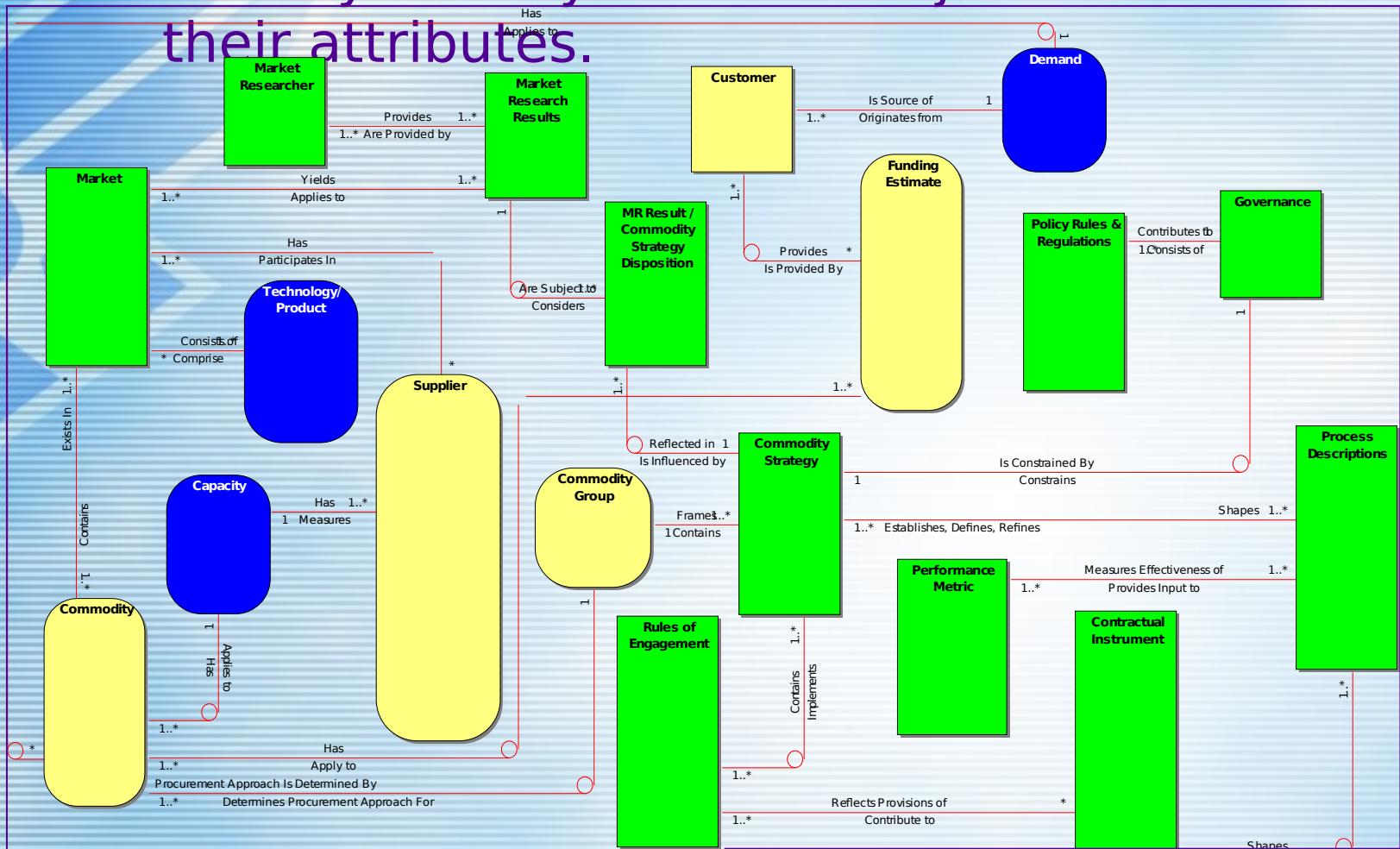
# Lower level workflow models, and their interpretations, provide detailed descriptions of sub-processes.







# At the conceptual level, the Business Class Model and its interpretation identify the key business objects and their attributes.



**Develop Commodity Strategy**  
Business Class Model  
Pre-cursor to Logical Data Model (OV-7)



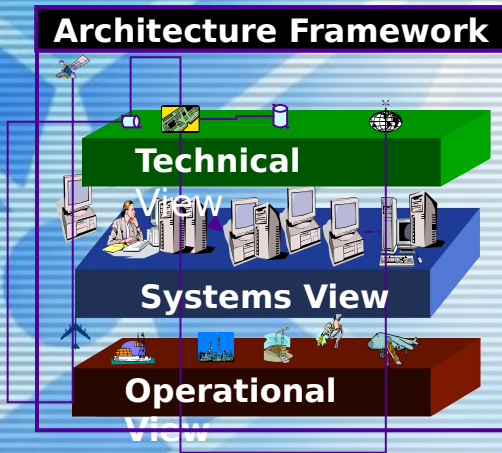
# Procurement Transformation

## Enterprise Architecture for Procurement (EAP)

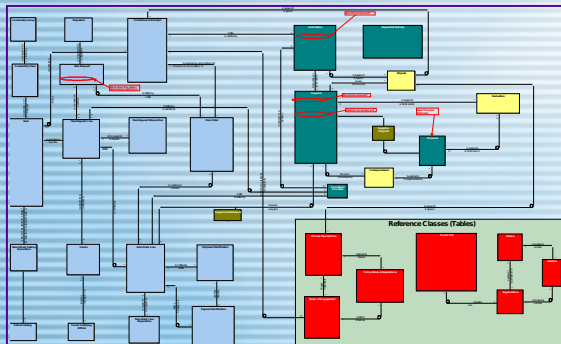
### **System Views**



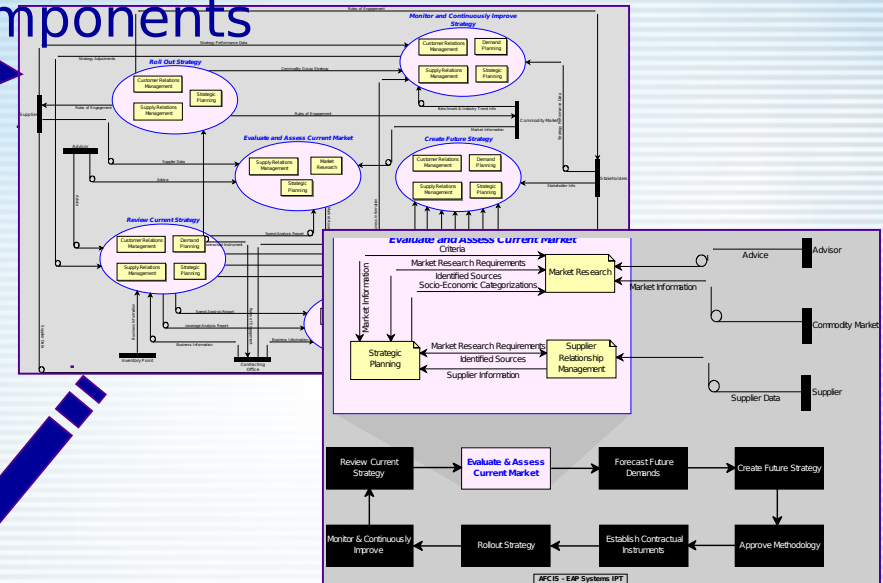
# System Views are derived from Operational Views, then detailed



- Multiple workshop sessions yield added detail



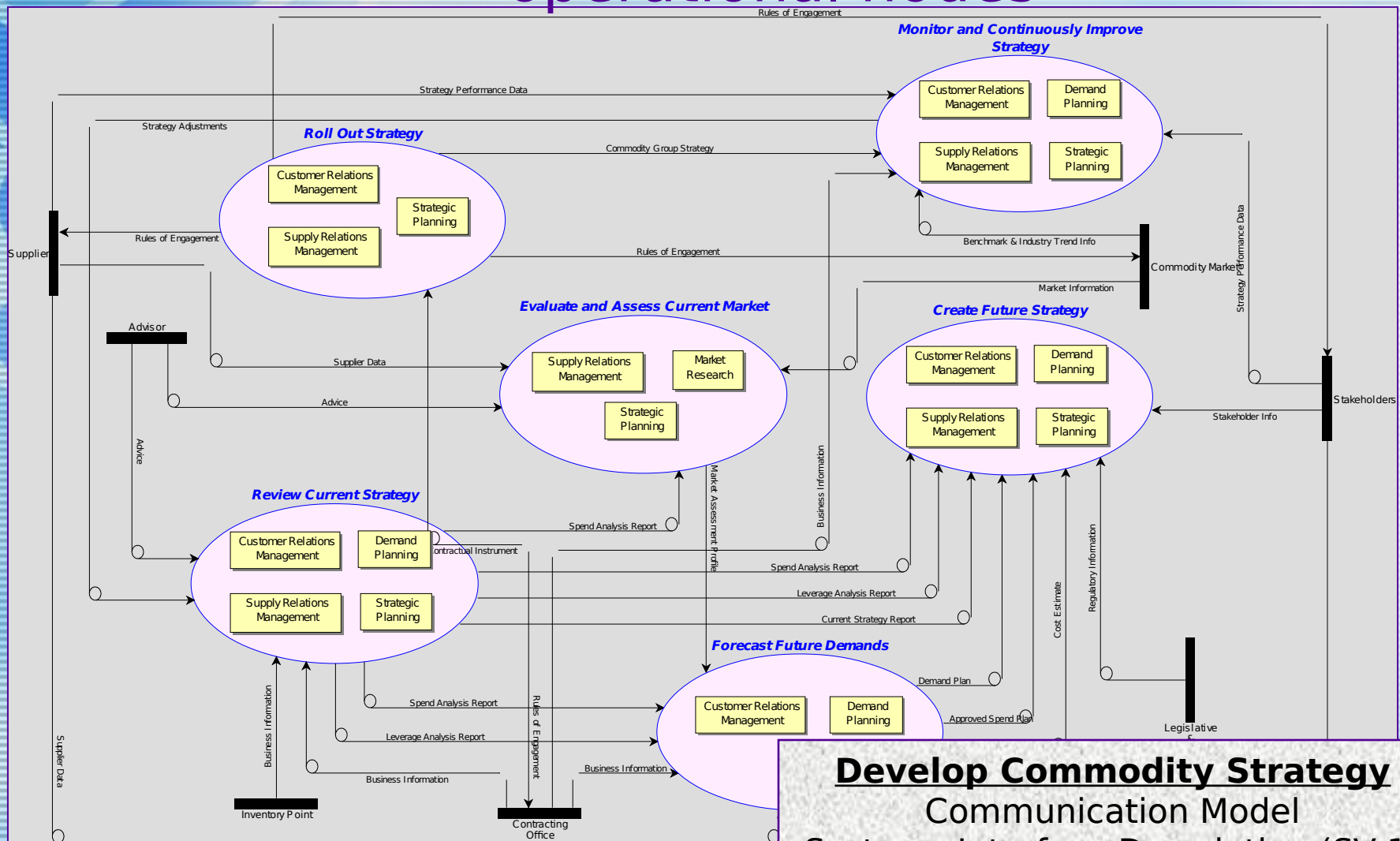
- Based on Operational Views, team has developed major "System View" architecture components







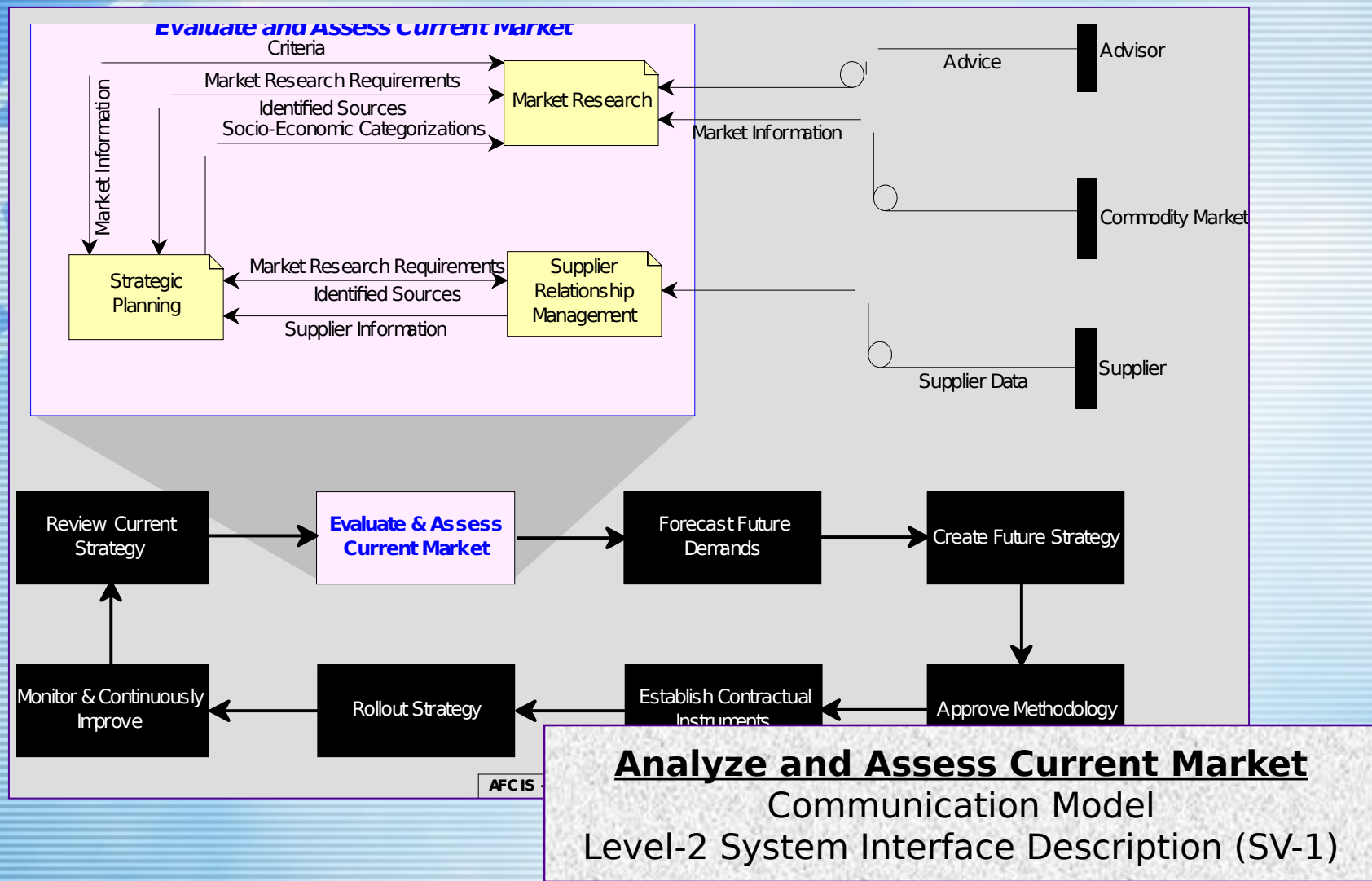
# The System Interface Description identifies systems that support operational nodes

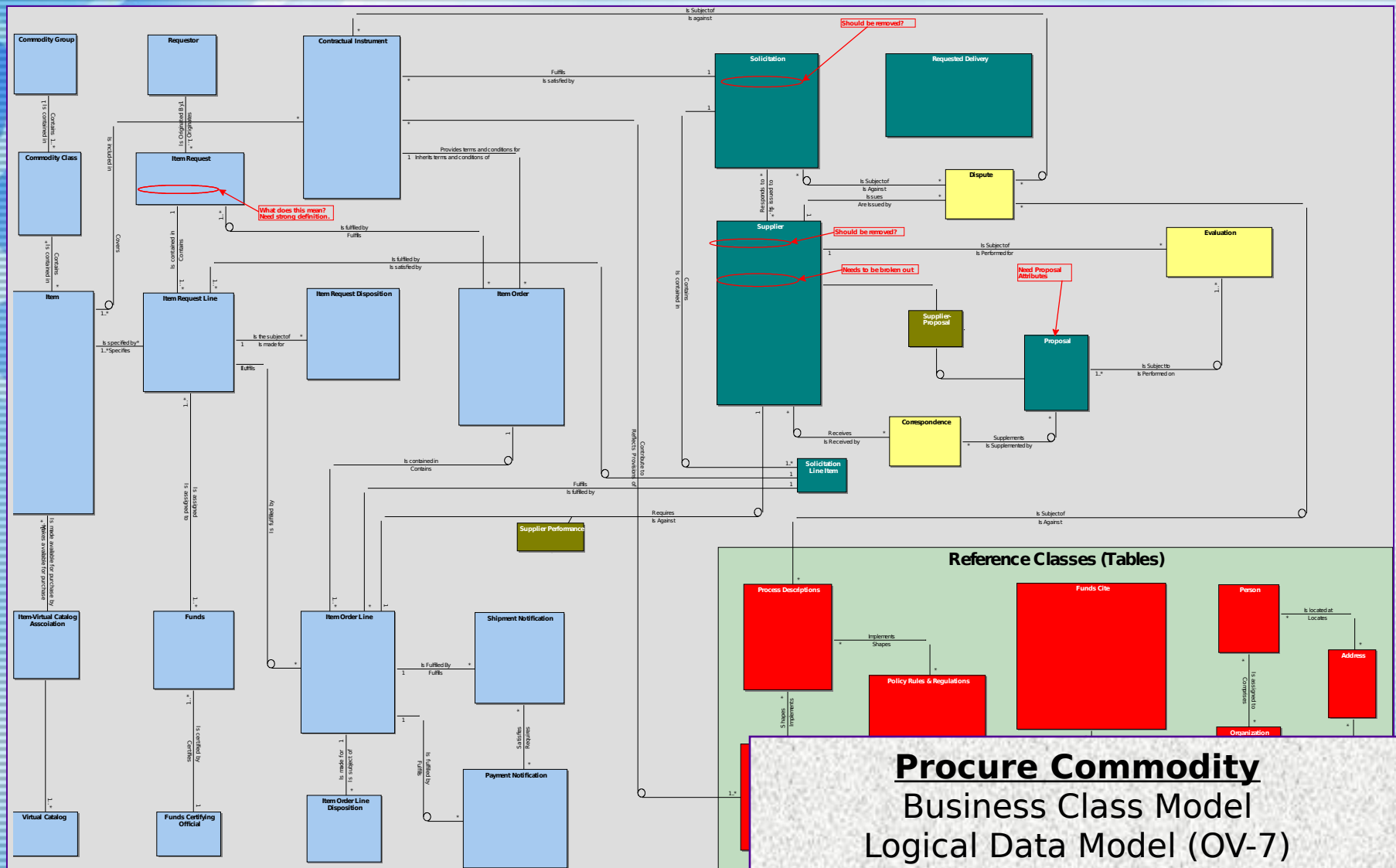
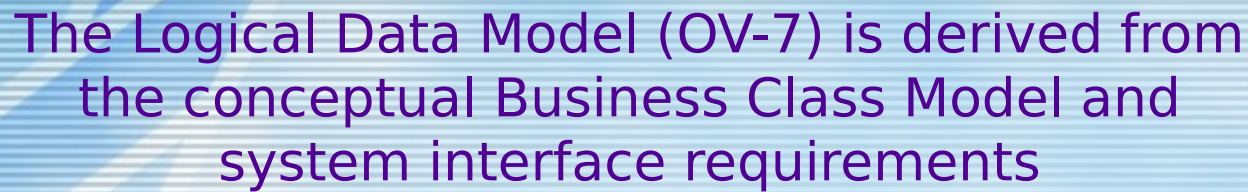


**Develop Commodity Strategy**  
Communication Model  
Systems Interface Description (SV-1)



# Lower-level SV-1 models add detail to the System Views









# Procurement Transformation

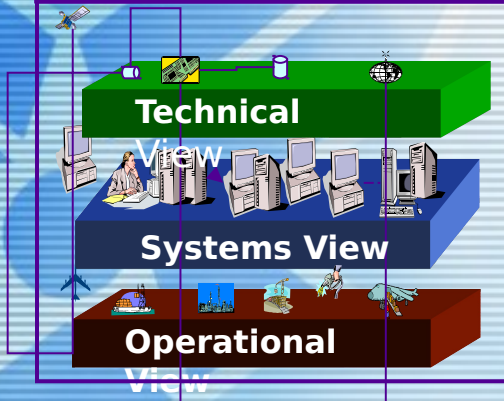
## Enterprise Architecture for Procurement

### **Technical Views**



# Technical Views are based on the foundation of the Joint Technical Architecture

## Architecture Framework



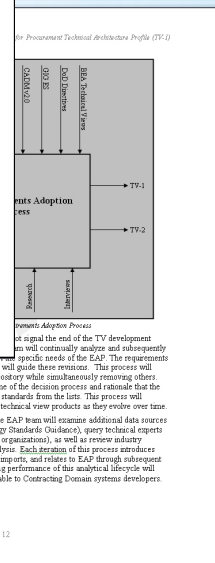
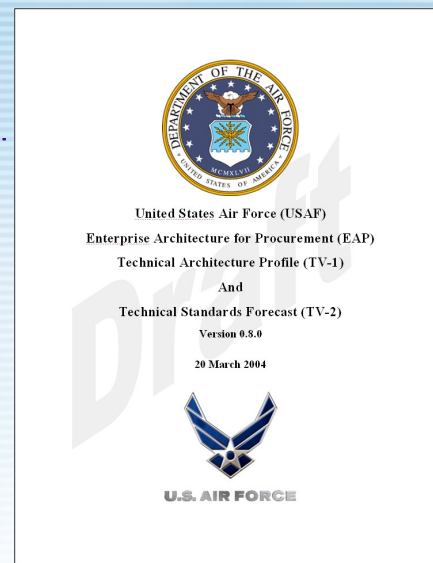
## Guidance and Requirements Analyzed:

- BEA Technical Views
- Clinger-Cohen Act
- OMB Circular A-130
- C4ISR V2.0
- DODAF V1.0
- CADM 2.0
- GIG ES
- DoD Directives 5000.2-R, 4630.5, 5200.1, 5200.40, 5200.28, 8000.1,

### Information Processing Services

Information Processing Standards	Description	Req. By
Information Processing Services	The information processing standards in this section apply to support applications, system services, and operating system services that are contained in the Application Software and Application Platform. Routines of the TBM.	J T A
Software Engineering Services	The software engineering services provide system developers with the tools that are appropriate to the development and maintenance of applications. Language services provide the basic syntax and semantic definition for developers to describe the desired software. Functions, DQD, programs should design and develop software based on the application of systems and software engineering best practices. Programming language solutions should be made in the context of the system and software engineering factors to minimize overall life-cycle costs and risks and to maximize potential interoperability. Computer languages should be used in such a way as to minimize changes when compiling, operating systems, or the hardware change. To maximize portability, the software should be structured where possible so it can be easily ported.	J T A
Common Operating Environment	The Common Operating Environment (COE) concept and levels of compliance are described in the Integration and Runtime Specification (I&RTS). The COE is implemented with a set of modular software that provides generic functions or services, such as operating system services. These services or functions are accessed by other software through standard Application Program Interface (API). The COE may be adopted and tailored to meet the specific requirements of a domain. COE implementations provide standard, modular software services consistent with service areas identified in the TBM. Application programmers then have access to these software services through standardized APIs.	J T A
Integration and Runtime Specification (I&RTS)	Defense Information Infrastructure (DI) Common Operating Environment (COE), Integration and Runtime Specification (I&RTS), Version 4.1, 3 October 2000 <sup>1</sup> JTA Paragraph 2.5.1.1(a) JTA Reference	Y X

<sup>1</sup> The JTA version 6 no longer includes mention of the Common Operating Environment. However, EAP will keep this as a standard as it provides a common set of evaluation criteria for EAP candidate software.  
<sup>2</sup> I&RTS also may require registration to access document.  
<sup>3</sup> I&RTS currently at version 4.3. Software developed after 1 December 2003 must utilize this version of the I&RTS.



## Technical Subject Matter Experts identified mandated and emerging standards

## Technical Architecture Profile (TV-1) Technical Standards Forecast (TV-2)



# Procurement Transformation

Enterprise Architecture for  
Procurement

**Conclusion**





# What will be gained by EAP and Procurement Transformation?

Industry innovation directly effects the bottom line

$$\text{Profit} = \text{Revenue} - \text{Expenses}$$

Government innovation directly effects the customer

$$\text{Enhanced Warfighter Capabilities} = \text{Available Resources} - \text{Cost}$$

*The AF must leverage its “buying power” to enhance the warfighters needs.*



# Strategic Sourcing: Where we are headed

## Strategic sourcing will continue

- Exploring candidates for future commodity councils
  - Office Supplies
  - Medical
  - Security Forces
  - Construction
  - Services

## Further pursue our procurement transformation roadmap

- Strategic planning activities
  - Reestablish contracting strategy board
  - Validate the vision & plan to get us there
- Need to improve communication so we are all driving towards the same end state

## Change management

***“Never underestimate the power of inertia to hold you hostage to where you used to be.” - Dr. Tushman***





# What lessons have been learned or reinforced by the

Visual modeling techniques? are essential because:

- Allow development of a common understanding of complex processes and issues among participants
- Provide an unambiguous way to communicate results to non-participants

Facilitated modeling workshops are essential because:

- No one knows everything about complex processes and issues
- Consensus is imperative for successful change
- Neutral facilitators allow reconciliation of differing viewpoints

An integrated suite of visual modeling tools is essential because:

- Developing consistent visual & textual representations is imperative
- Managing the sheer volume of inter-related information would not be possible otherwise

Effective sponsorship and participation is essential because:

- Knowledge and creativity must be drawn from diverse sources
- Organizational “ownership” enables successful implementation





# Questions?

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# Procurement Transformation

